

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application. Currently amended claims are shown with additions underlined and deletions in ~~striketrough~~ text. No new matter is added by these amendments.

Listing of Claims:

1-173. (Canceled).

174. (Previously presented) An apparatus, comprising:

a housing;

a mock anatomical site defining an orifice, the mock anatomical site being pivotably coupled to the housing, the orifice being configured to receive a peripheral device;

a capture mechanism configured to engage the peripheral device; and

a sensing assembly configured to detect a manipulation of the engaged peripheral device and transmit information associated with the manipulation to a simulation system.

175. (Previously presented) The apparatus of claim 174, wherein the peripheral device corresponds to an endoscope and a mock endoscope.

176. (Previously presented) The apparatus of claim 174, the capture mechanism being a first capture mechanism, the peripheral device including a nested instrument assembly having a plurality of nested instruments, the apparatus further comprising:

a plurality of capture mechanisms including the first capture mechanism, each capture mechanism from the plurality of capture mechanisms being uniquely associated with one of the nested instruments from the plurality of nested instruments, the plurality of capture mechanisms being configured to engage its associated nested instrument from the plurality of nested instruments; and

a plurality of sensing assemblies each being uniquely associated with one of the nested instruments from the plurality of nested instruments, each sensing assembly from the plurality of sensing assemblies being configured to detect a manipulation of its associated nested instrument of the plurality of nested instruments.

177. (Previously presented) The apparatus of claim 174, wherein the sensing assembly includes:
an actuator configured to apply force feedback to the peripheral device based on the detected manipulation of the engaged peripheral device.

178. (Previously presented) The apparatus of claim 174, wherein the peripheral device is one of an endoscope and a mock endoscope.

179. (Previously presented) The apparatus of claim 174, the peripheral device being one of an endoscope and a mock endoscope, the apparatus further comprising:

- a working channel;
- a working channel peripheral device; and
- a sensor configured to detect a movement of the working channel peripheral device.

180. (Previously presented) The apparatus of claim 174, the peripheral device being one of an endoscope and a mock endoscope, the apparatus further comprising:

- a working channel;
- a working channel peripheral device;
- a sensor configured to detect a movement of the working channel peripheral device; and
- an actuator configured to apply force feedback to said working channel peripheral device based on the detected movement of the engaged peripheral device.

181. (Previously presented) The apparatus of claim 174, the peripheral device being one of an endoscope and a mock endoscope, the apparatus further comprising:

a navigation tube configured to traverse a simulated anatomy of a virtual patient, the navigation tube having a first portion and a second portion, the second portion corresponding to a medical tool;

a navigation tube position control peripheral associated with the second end of the navigation tube; and

a sensor configured to measure a manipulation of the tube position control peripheral.

182. (Previously presented) The apparatus of claim 174, the capture mechanism being a first capture mechanism, the peripheral device including a nested instrument assembly, the nested instrument assembly including a plurality of nested instruments, the apparatus further comprising:

a plurality of capture mechanisms including the first capture mechanism, each capture mechanism from the plurality of capture mechanism being uniquely associated with one of the nested instruments from the plurality of nested instruments, each capture mechanism from the plurality of capture mechanisms being configured to engage one of the nested instruments of the plurality of nested instruments; and

a plurality of sensing assemblies, each sensing assembly from the plurality of sensing assemblies being uniquely associated with one of the nested instruments of the plurality of nested instruments, each sensing assembly being configured to detect a manipulation of one of the nested instruments from the plurality of nested instruments.

183. (Previously presented) The apparatus of claim 174, wherein the sensing assembly is configured to detect insertion and removal of the peripheral device.

184. (Previously presented) An apparatus, comprising:

- a housing defining an orifice, the orifice being configured to receive a peripheral device;
- a capture mechanism being configured to engage a received peripheral device; and
- a sensing assembly, the sensing assembly being configured to detect manipulation of an engaged peripheral device and being configured to detect insertion and removal of the received peripheral device.

185. (Previously presented) An apparatus, comprising:

- a housing defining an orifice, the orifice corresponding to a mock anatomical site and being configured to receive a peripheral device;
- a pivoting mechanism coupled to the housing and configured to pivot the mock anatomical site; and
- a sensing assembly, the sensing assembly being configured to detect a manipulation of a received peripheral device.

186. (Previously presented) An apparatus, comprising:

- a housing defining an orifice, the orifice being configured to receive a nested peripheral device having a plurality of nested instruments;
- a plurality of sensing assemblies, each sensing assembly being uniquely associated with a nested instrument from the plurality of nested instruments, at least one sensing assembly from the plurality of sensing assemblies including a rotational motion sensor configured to detect a rotational motion of a nested instrument from the plurality of nested instruments and a translational motion sensor configured to measure a translational motion of a nested instrument from the plurality of nested instruments;
- a first peripheral motion assembly, the first peripheral motion assembly being configured to engage a first nested instrument from the plurality of nested instruments, the first peripheral motion assembly being configured to pass a second nested instrument from the plurality of nested instruments; and

a second peripheral motion assembly, the second peripheral motion assembly being configured to engage the second nested instrument after the second nested instrument has passed through the first peripheral motion assembly.

187. (Previously presented) An apparatus, comprising:

a housing;

a plurality of mock anatomical sites, the plurality of mock anatomical sites each being pivotably coupled to the housing, each mock anatomical sites from the plurality of mock anatomical sites being configured to receive a peripheral device; and

a plurality of sensing assemblies, each sensing assembly from the plurality of sensing assemblies being associated with one mock anatomical site from the plurality of mock anatomical sites, each sensing assembly from the plurality of sensing assemblies being configured to detect a manipulation of a received peripheral device.

188. (Previously presented) The apparatus of claim 187, wherein each sensing assembly from the plurality of sensing assemblies includes:

a rotational motion sensor, the rotational motion sensor being configured to detect a rotational motion of the peripheral device; and

a translational motion sensor, the translational motion sensor being configured to detect a translational motion of the peripheral device.

189. (Previously presented) The apparatus of claim 187, further comprising:

a plurality of capture mechanisms, each capture mechanism from the plurality of capture mechanisms being configured to engage the peripheral device; and

a plurality of peripheral motion assemblies, each peripheral motion assembly from the plurality of peripheral motion assemblies being coupled to an associated one capture mechanism from the plurality of capture mechanisms and an associated one of the plurality of sensor assemblies, at least one of the plurality of peripheral motion assemblies being moveable in response to a translational manipulation of the peripheral device.

190. (Currently amended) A method, comprising:

providing a housing;

providing a pivotable mock anatomical site pivotably coupled to the housing, the pivotable mock anatomical site being configured to receive a peripheral device;

providing a capture mechanism, the capture mechanism being configured to engage the received peripheral device;

providing a sensor, the sensor being configured to detect a manipulation of the engaged peripheral device, the sensor being configured to output a sensor signal associated with the detected manipulation of the engaged peripheral device; and

providing an actuator, the actuator being configured to apply force feedback to the engaged peripheral device based on the sensor signal.

191. (Previously presented) The method of claim 190, wherein the pivotable mock anatomical site is configured to receive one of an endoscope and a mock endoscope.

192. (Previously presented) The method of claim 190, wherein the capture mechanism is configured to engage at least one nested instrument of a nested instrument assembly, the nested instrument assembly including a plurality of nested instruments.

193. (Previously presented) The method of claim 190, further comprising:

providing an output terminal, the output terminal being configured to output the sensor signal to a simulation system, the simulation system being configured to simulate an endoscopic procedure.

194. (Previously presented) The method of claim 190, wherein the pivotable mock anatomical site is configured to receive a working channel peripheral device, the working channel peripheral device being configured for use with an endoscope.

195. (Previously presented) The method of claim 190, wherein the pivotable mock anatomical site is configured to receive a navigation tube, the navigation tube having an end portion corresponding to a medical instrument.

196. (Currently amended) The method of claim 190, wherein the capture mechanism is configured to engage at least one nested instrument of a plurality of nested instruments and does not engage ~~at least one~~ a remaining nested instrument from the plurality of nested instruments.

197. (Previously presented) The method of claim 190, wherein the sensor assembly is configured to detect an insertion and a removal of the received peripheral device.

198. (Currently amended) A method, comprising:

- receiving a first peripheral device in a first orifice having a capture mechanism;
- receiving a second peripheral device in a second orifice having a capture mechanism;
- engaging the first peripheral device with the capture mechanism of the first orifice;
- engaging the second peripheral device with the capture mechanism of the second orifice;
- detecting via a sensor a manipulation, an insertion, and a removal of the first engaged peripheral device; and

- detecting via a sensor a manipulation, an insertion, and a removal of the second engaged peripheral device, the detection of the manipulation, the insertion, and the removal of the first engaged peripheral device and the detection of the manipulation, the insertion, and the removal of the second engaged peripheral device occurring substantially simultaneously and being used to simulate the exchange of medical instruments during a medical procedure.

199. (Currently amended) A method, comprising:

- receiving a peripheral device at a pivotable mock anatomical site, the pivotable mock anatomical site having an orifice and being pivotably coupled to a housing;
- engaging the peripheral device with a capture mechanism, the capture mechanism being configured to couple the peripheral device to ~~the~~ a sensor assembly;
- detecting a manipulation of the engaged peripheral device using the sensor assembly; and

providing force feedback via an actuator, the force feedback being based on the detected manipulation of the engaged peripheral device.

200. (Previously presented) A method, comprising:

providing a mock anatomical site, the mock anatomical site including an orifice, the orifice being configured to receive a peripheral device;

providing a capture mechanism configured to engage the peripheral device and couple the engaged peripheral device to a sensing assembly;

providing a resiliency-providing material disposed between the orifice and the sensing assembly; and

providing a hollow member extending through the resiliency-providing material, the hollow member being configured to guide the peripheral device to the sensing assembly.